

**PIERCE COUNTY WISCONSIN
DEPARTMENT OF LAND MANAGEMENT &
RECORDS**

PLANNING, ZONING, SURVEYING & GIS

414 W. Main Street P.O. BOX 647

Ellsworth, Wisconsin 54011

715-273-6746 OR 715-273-6747

Fax: 715-273-6864



**Private On-Site Wastewater Treatment System (POWTS)
HOLDING TANK COMPONENT**

General Submittal Information Check List:

- ☐ State Sanitary Permit Application
- ☐ Sanitary Permit Fee
- ☐ Index & Title Sheet
- ☐ Plot Plan
- ☐ Reference Map with CSM, Plat, or Ortho Photographic Map
- ☐ System Sizing, Tank Cross Section & Alarm Equipment
- ☐ Manufacturers Tank Specifications
- ☐ Tank Anchoring Calculation
- ☐ Holding Tank Manual & Management Plan
- ☐ Holding Tank Servicing Contract
- ☐ Holding Tank Agreement

Private On-Site Wastewater Treatment System (POWTS)
Index and Title Sheet

Owner's Name: _____

Site address: _____

Location: Lot _____, Block _____, Subdivision/CSM _____
being part of the _____ ¼ of the _____ ¼, Section _____, Town _____ N, Range _____ W,
Town of _____, Pierce County, WI.
Parcel Identification # _____ - _____ - _____

Design: In accordance with Department of Safety & Professional Services (SPS) Wisconsin
Administrative Code Chapter SPS 381 through 387 and 391, this plan is using
☒ Holding Tank Component Manual [VER 2.0, SBD-10855-P (N. 03/07, R. 1/12)]

Contents: Page 1: _____

Page 2: _____

Page 3: _____

Page 4: _____

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Page 9: _____

Attachments: _____

Plumber/Designer: _____ Signed: _____

Credential Number: _____ Date: _____

Private On-Site Wastewater Treatment System (POWTS)

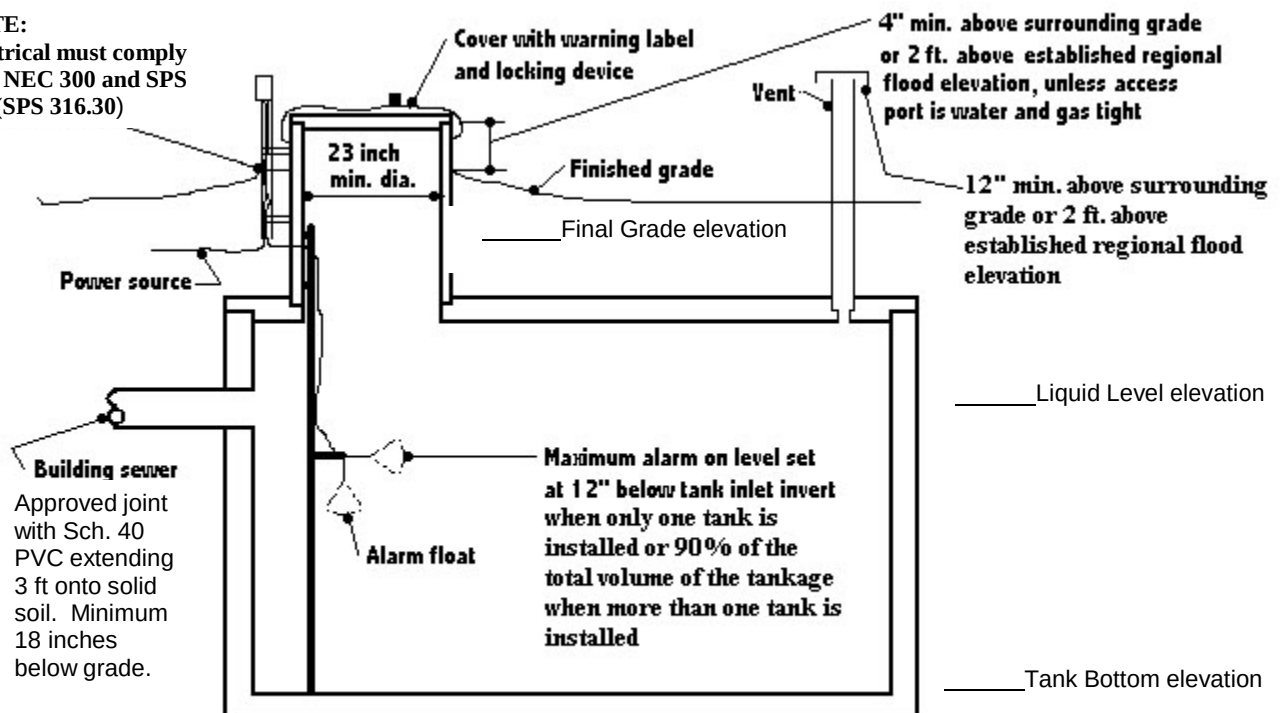
PLOT PLAN: Draw the property with proposed POWTS.



Private On-Site Wastewater Treatment System (POWTS)

**HOLDING TANK CROSS-SECTION
& SPECIFICATIONS****NOTE:**

Electrical must comply with NEC 300 and SPS 316 (SPS 316.30)

**Cross-Section of Holding Tank**

1. Tank Bedding per requirements of Tank Manufacturer.
2. Attach manufacturer's drawing and list bedding information:
_____ inches of bedding below tank.
3. Indicate Alarm Equipment Installation elevation.
4. Location of service access opening is < 25 feet to an all-weather road measured from the furthest service access opening or pump out port. "All-weather road" means a gravel or paved surface that can support a fully loaded pump truck in all seasons.

Private On-Site Wastewater Treatment System (POWTS)
Treatment or Holding Tank Anchoring Calculation

When a holding tank may be installed in saturated soils (see Ch. SPS 385, WI Administrative Code for more information on how to determine soil saturation) and/or in an area that is considered part of a 100-year floodplain, the tank shall meet provisions of SPS 383.43(8)(g), Wis. Adm. Code.

All tank(s) must be anchored whenever they are at risk for being installed in an area where they may be located in saturated conditions all/part of the year. Using soil as the anchor has become an acceptable alternative to concrete.

Flotation potential is the displacement of the tank calculated by its volume in cubic feet.

Line A: Calculate cubic feet of tank.

_____ inches high, x _____ inches wide, x _____ inches long, = _____ cubic inches.

Divide this number by 1,728 to equal _____ cubic feet.

Line B: Convert the displacement to the weight of water.

_____ (from line A) cubic feet x 62.4 (weight of 1 cubic foot of water) x 1.5 (safety factor) =

_____ lbs. of lift potential.

Line C: Calculate weight needed to counter buoyancy.

_____ lbs. (Displacement weight from line B.) - _____ lbs. (weight of tank per manufacturer) = lbs. of soil needed to anchor tank: _____ lbs.

Line D: Weight of the soil media including safety factor needed over the tank to anchor the tank adequately.

Tank cover width _____ inches x tank cover length _____ inches, divided by 144 = _____ square feet x 0.083 (1 inch in foot decimal) = _____ cubic feet (volume of 1 inch of space over the tank cover).

Line E: Calculated weight of 1 inch of space over entire cover.

_____ cubic feet of space (from line D) x 100 lbs./cubic foot of = _____ lbs./inch space above cover .

Line F: Calculate inches of soil needed to counter buoyancy.

_____ lbs. (from line C) divided by _____ lbs. per inch of soil (from line E) = _____ inches need over tank cover.

-OR -

ANCHORING SYSTEM COMPONENTS per ch. SPS 383 Appendix A-383.43(8)(g)

The anchoring of components to counter buoyant forces due to saturated soil conditions can be determined using the following formula:

Weight of the component plus the weight of the anchor	=	1.5 times (volume of water the component displaces) times [the weight of water (62.4 pounds/cubic foot at 39°F)]
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Private On-Site Wastewater Treatment System (POWTS)

HOLDING TANK SYSTEM - USER'S MANUAL

A. SYSTEM OPERATION: The holding tank system serves to contain wastewater on a site until the contents are pumped and hauled to a proper point of disposal by an individual certified under WI Admin. Code Chapter NR 114.

Wastewater from your interior plumbing system enters the building sewer that terminates at the inlet of a prefabricated concrete holding tank system. The tank system has a switch that is set to activate when the liquid level reaches a point 12" below the tank inlet invert when one tank is installed or 90% of the tank volume when more than one tank is installed. The switch activates a high water alarm located inside a tank alert box that is installed on a pedestal or inside the dwelling. When the tank is full of wastewater, the switch will be activated and cause an audible alarm to sound. A switch located on the tank alert box can turn off the audible alarm. The liquid waste carrier contracted to service the holding tank system should be called immediately after the alarm is switched off. There is only a limited reserve capacity left in the holding tank system after the alarm has been activated.

B. DESIGN FLOW: The holding tank system has a total wastewater capacity of _____ gallons. Servicing intervals cannot be predicted, as every household has varying water use habits. Use of water conserving fixtures and water conserving practices will increase the number of days before the tank needs to be serviced by a liquid waste carrier.

C. WARNING: Failure to have the holding tanks serviced on a timely basis may cause wastewater to back up into the dwelling and/or discharge from the holding tank's manhole cover. The discharge of sewage to the surface of the ground is a public health hazard and subject to enforcement action by Pierce County.

Soil settling around the tank perimeter may occur after it has been backfilled. All depressions caused by soil settling should be filled with soil material to prevent surface water collection. Depressions left unfilled may allow surface water to freeze and cause frost damage to the manhole riser ring joints or the other tank components.

Do not drive over or near the buried holding tank system with any vehicle or construction equipment. This action may result in a cracked tank(s). This type of damage may allow groundwater to enter the holding tank(s) and increase the frequency of pumping.

Many disease-causing viruses, parasites, and bacteria are present in the holding tank's wastewater. Even the slightest exposure to wastewater may adversely affect one's health and increase the risk of serious illness.

Please note that the owner of this POWTS must provide the septic servicing operator with reasonable access to the tank(s). This may include (but is not limited to) construction of a designated drive or servicing pad to within 25 horizontal feet and/or to within 15 vertical feet to bottom of the tank(s), foot traffic over and through property, or vehicle traffic over and through property.

D. TROUBLE-SHOOTING

1. Wastewater backs-up or overflows manhole cover:
 - a. High water alarm not working.
 - b. Tanks not pumped.
2. High water alarm not working:
 - a. Tank alert box not plugged into electrical outlet.
 - b. Audible alarms switch on silent mode.
 - c. Tank switch installed improperly or defective.
 - d. Tank switch electrical connections faulty.
 - e. Electrical line to switch defective.
3. Groundwater entering tank:
 - a. Tank manhole riser ring joints leaking.
 - b. Tank sidewalls or base cracked.

E. MAINTENANCE:

1. The tank alert box has a test button that should be pushed once a month to assure the high water alarm system is working properly.
2. The float containing the high water alarm switch may need to be cleaned whenever scum or solids build up on its outer surface. Accumulation of solids on the float may interfere with switch activation.
3. All manhole covers padlocks should be oiled or greased periodically to ensure free movement of lock components.
4. The locking device should be inspected after each tank servicing to prevent unauthorized entry.

F. CONTINGENCY PLAN IN THE EVENT OF FAILURE: A badly cracked holding tank may need to be replaced depending upon the amount of damage and the crack's location. The tank manufacturer should be contacted to make a determination as to whether the tank can be repaired or needs replacement. Groundwater may enter the cracked tank requiring more frequent servicing by the contracted liquid waste carrier until the tank is repaired or replaced.

G. CONTACTS IN THE EVENT OF COMPONENT FAILURE

REGULATORY AGENCY: Pierce County Department of Land Management
414 W. Main Street, P.O. Box 647, Ellsworth, WI 54011
(715) 273-6747

NAME OF INSTALLER: Name: _____
Address: _____

Phone: _____

TANK MANUFACTURER: Name: _____
Address: _____

Phone: _____

**HIGH WATER ALARM
SYSTEM MANUFACTURER:** Name: _____
Address: _____

Phone: _____

Private On-Site Wastewater Treatment System (POWTS)
HOLDING TANK MANAGEMENT PLAN

This Private Onsite Wastewater Treatment System (POWTS) has been designed, and is to be installed and maintained according to Ch. SPS 383, WI Administrative Code, the Holding Tank Component Manual [Version 2.0, SBD-10855-P (N. 03/07, R. 1/12)], and Pierce County Sewage Disposal Code Ch. 191.

1. This POWTS is designed to accommodate all wastewater generated by a _____ bedroom residence.
2. The owner of this POWTS is responsible for system operation and maintenance, including all provisions in the attached Holding Tank Servicing Contract and Maintenance Agreements.
3. Each time the wastewater in the tank reaches 90% of the tank(s) capacity or a level of 12" below the inlet (at which time the alarm will activate), the pumper listed in the current Servicing Contract must be called to empty the tank's contents and dispose of them in accordance with NR 113, Wis. Adm. Code.
4. At each service event, the service provider should visually inspect the condition of the tank, risers and manhole cover(s) and verify that the alarm system functions and manhole locking devices are present. Discrepancies are reported to the owner in a timely manner for corrective action. All corrective actions shall comply with the county sanitary ordinance and SPS 383 and 384 Wis. Adm. Code.
5. All service events or inspections of this POWTS shall be reported to the county in the semi-annual report.
6. The owner may not remove any of the wastes from the holding tank(s), or cause such wastes to be removed by any person not authorized to do so under Ch. 281, Wis. Statutes. The discharge of wastes tank to the ground surface, including intentional discharges and discharges caused by neglect, constitutes a failing POWTS and may result in issuance of correction orders or a citation by the county or state.
7. No one should enter a holding tank for any reason without being in full compliance with OSHA standards for entering a confined space. The atmosphere within these tanks may contain lethal gases, and rescue of a person from the interior of the tank may be difficult or impossible.
8. In the event that this POWTS fails and cannot be repaired, a code compliant replacement holding tank may be installed in the same location (a new sanitary permit is required for such a replacement). Connection to municipal services would also be considered at this time if they are deemed available to the property.
9. If this POWTS is replaced, or its use discontinued, components no longer in use it shall be abandoned in accordance with s. SPS 383.33 Wis. Adm. Code.
10. If there is a problem with, or question about this installation, the following persons should be contacted:
 - a. Installer: _____ Phone: _____
 - b. Service Provider: _____ Phone: _____
 - c. Regulatory Agency: Pierce County Department of Land Management Phone: (715) 273-6747

Private Onsite Wastewater Treatment System (POWTS)
HOLDING TANK SERVICING CONTRACT

A POWTS Holding Tank Servicing Contract is being made on this date _____ between the property owner(s), _____, and a Wisconsin DNR Licensed Pumper, _____.

We acknowledge the installation of the holding tank(s) on the property with the following legal description:

Site address _____ Parcel Identification # ____-____-____ Lot ____, Block____,
Subdivision/CSM _____ being part of the ____¼ of the ____¼, Section _____ or Government Lot ____,
Town____N, Range____W Town of _____, Pierce County, Wisconsin.

~ The following shall apply:

1. The owner agrees to file a copy of this contract with the local governmental unit that has signed the pumping agreement required in s. SPS 383.54(3)(c), Wis. Adm. Code and Section VII of the Holding Tank Component Manual with the Pierce County, Wisconsin.
2. The owner agrees to have the holding tank(s) serviced by the pumper and guarantees to permit the pumper to have access and to enter upon the property for the purpose of servicing the holding tank(s). The owner agrees to maintain the access road or drive so that the pumper can service the holding tank(s) with the pumping equipment. The owner further agrees to pay the pumper for all charges incurred in servicing the holding tank(s) as mutually agreed upon by the owner and pumper.
3. The pumper agrees to submit to the local governmental unit which has signed the pumping agreement required by s. SPS 383.55(1)(a), Wis. Adm. Code, and to the County, a report for the servicing of the holding tank(s) on a semiannual basis. The pumper further agrees to include the following in the semiannual report:
 - a. The name and address of the person responsible for servicing the holding tank;
 - b. The name of the owner of the holding tank;
 - c. The location of the property on which the holding tank is installed;
 - d. The sanitary permit number issued for the holding tank;
 - e. The dates on which the holding tank was serviced;
 - f. The volumes in gallons of the contents pumped from the holding tank for each servicing;
 - g. The disposal sites to which the contents from the holding tank were delivered.
4. This agreement will remain in effect until the owner or pumper terminates this contract. In the event of a change in this contract, the owner agrees to file a copy of any changes to this service contract or a copy of a new service contract with the local governmental unit and the County named above within ten (10) business days from the date of change to this service contract.

Owner Signature Owner Name - Printed Co-Owner Signature (if applicable) Please print Co-Owner Name (if applicable)	Pumper Signature Pumper Name - Printed WI DNR Certification # WI DNR Business License #	This instrument was acknowledged before me on this date _____ by _____ NOTARY PUBLIC Signature Notary Public Name - Printed County of _____, State of Wisconsin. My commission expires: _____.
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Personal information may be used for secondary purposes [Privacy Law, s.15.04(1)(m)]

Drafted by Department of Land Management

Submit the original or a copy to the Pierce County Land Management Department.

Affix seal

USE BLACK INK

HOLDING TANK AGREEMENT

On this date _____, a Holding Tank Agreement is made between the

(check one) ☐ City ☐ Village ☐ Town of _____

and the land owner(s)/holding tank owner(s): _____

We acknowledge the application is being made for the installation of a holding tank(s) on the following property: (Provided legal description below or ☐ See Attached.)

Parcel Number: _____

Site Address: _____

Legal Description: _____

Document Number/Recording Area

Name and Return Address:

Pierce County Land Management Dept.
County Courthouse, 414 W Main St,
PO Box 647, Ellsworth, WI 54011

Or that continued use of the existing premises requires that a holding tank be installed on the property for the purpose of proper containment of sewage. Also, the property cannot be served by a municipal sewer or any other type of private sewage system as permitted under Ch. SPS 383, Wis. Adm. Code, Ch. 145 Wisconsin Statutes, and Ch. 191 Pierce County Sewage Disposal Code.

As an inducement to the County of Pierce to issue a sanitary permit for the above described property, we agree to do the following:

1. Owner agrees to conform to all applicable requirements of Ch. SPS 383, Wis. Adm. Code and Ch. 191 Pierce County Sewage Disposal Code relating to holding tanks. If the owner fails to have the holding tank properly serviced in response to orders issued by the County to prevent or abate a human health hazard as described in s. 254.59, WI Stats., the County and/or local governmental unit may enter upon the property and service the tank or cause to have the tank to be serviced and charge the owner by placing the charges on the tax bill as a special assessment for current services rendered. The charges will be assessed as prescribed by s. 254.59 (2), WI Stats.
2. Owner agrees to pay all charges and cost incurred by the governmental unit and/or County for inspection, pumping, hauling, or otherwise servicing and maintaining the holding tank in such a manner as to prevent or abate any human health hazard caused by the holding tank. The governmental unit shall notify the owner of any costs which shall be paid by the owner within thirty (30) days from the date of notice. In the event the owner does not pay the costs within thirty (30) days, the owner specifically agrees that all the costs and charges may be placed on the tax roll as a special assessment for the abatement of a human health hazard, and the tax shall be collected as provided by law.
3. The owner agrees to contract with a person who is licensed under Ch. NR 113, Wis. Adm. Code, to have the holding tank serviced.
4. The owner agrees to contract with a person licensed under Ch. NR 113, Wis. Adm. Code, who shall submit to the County a report in accordance with Pierce County Chapter 191 for the servicing of the holding tank. The County may enter upon the property to investigate the condition of the holding tank when pumping reports and meter readings may indicate that the holding tank is not being properly maintained.
5. This agreement will remain in effect only until the County certifies that the property is served by either a municipal sewer or a soil absorption system that complies with Ch. SPS 383, Wis. Adm. Code. In addition, this agreement may be canceled by executing and recording said certification with reference to this agreement in such manner which will permit the existence of the certification to be determined by reference to the property.
6. This agreement shall be binding upon the owner, the heirs of the owner, and assignees of the owner. The owner shall submit the agreement to the register of deeds, and the agreement shall be recorded by the register of deeds in a manner which will permit the existence of the agreement to be determined by reference to the property where the holding tank is installed.

Owner(s) Name(s) - **Please print:**

Notarized Owner(s) Signature(s):

Pierce County LM Official Name - **Printed:**

Pierce County LM Official Title - **Printed:**

Pierce County LM Official Signature:

This instrument was acknowledged before me
on this date _____ by

Notary Public- Pierce Co, State of Wisconsin.

My commission expires: _____

Affix seal